Homework 2

CMSY-199, Fall 2012

The source code for this assignment must be submitted electronically using the Canvas course website prior to the start of class on Monday, September 24.

1. Create a class called `Date` that includes three instance variables – month (type `int`), day (type `int`), and year (type `int`). Provide a constructor that initializes the three instance variables. Provide `set` and `get` methods for each instance variable and ensure that the values being set are valid. Provide a method `display` that prints the month, day, and year separated by forward slashes (/). For the purposes of this assignment, consider a valid month to be any integer from 1 to 12, a valid day to be any integer from 1 to 31, and a valid year to be any integer greater than or equal to 0.

2. Write a Java application called `NormalRetirementAge` that computes a person's normal retirement age for Social Security. The normal retirement age has traditionally been 65, but gradually increases for people born in 1938 and later according to the table below.

Year of Birth	**Normal Retirement Age**
1937 and prior	65
1938	65 and 2 months
1939	65 and 4 months
1940	65 and 6 months
1941	65 and 8 months
1942	65 and 10 months
1943-54	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 and later	67

   Provide a static method called `compute` that takes a person's birthdate as a `Date` object and prints the person's normal retirement age. Note that anyone born on January 1st is treated as if they were born in the previous year.